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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,987	09/06/2000	Calvin B. Ward	54391	9378

7590 07/20/2009

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EXAMINER
DICUS, TAMRA

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
07/20/2009	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CALVIN B. WARD

Appeal 2009-005476
Application 09/655,987
Technology Center 1700

Decided:[1] July 20, 2009

Before CHARLES F. WARREN, CATHERINE Q. TIMM, and JEFFREY T. SMITH, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicant appeals to the Board from the decision of the Primary Examiner rejecting claims 1 through 8 and 21 through 28 for at least the

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[1] The two month time period for filing an appeal or commencing a civil action specified in 37 C.F.R. § 1.304, begins to run from the Decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

second time in the non-final Office action mailed May 1, 2008. 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R. § 41.31(a) (2008).

We reverse the decision of the Primary Examiner.

Claim 1 illustrates Appellant's invention of a protective covering, and is representative of the claims on appeal:

1. A protective covering comprising:

a water-impermeable electrostatically charged sheet having a top and bottom surface;

and

an absorbent layer having top and bottom surfaces, said bottom surface of said absorbent layer being bonded to said top surface of said electrostatically charged sheet, said absorbent layer being divided into a plurality of cells for containing liquid within the boundaries of said cells, said liquid being prevented from moving between said cells.

The Examiner relies upon the evidence in these references (Ans. 3):[2]

Rubino	4,992,121	Feb. 12, 1991
Evans	5,888,604	Mar. 30, 1999
Graham	6,159,325	Dec. 12, 2000

Appellant requests review of the following grounds of rejection advanced on appeal by the Examiner (App. Br. 5):

claims 23 and 27 under 35 U.S.C. § 102(b) over Rubino (Ans. 3); and

claims 1 through 8 and 21 through 28 under 35 U.S.C. § 103(a) over Evans in view of Rubino or alternatively in view of Graham (Ans. 5).

Appellant argues the claims in the first ground of rejection as a group. App. Br. 8-9. The claims in the second ground of rejection are grouped: claims 1, 25, and 28; claims 4 and 6; claim 7; claims 21, 23, 26, and 27; and

[2] We consider the Appeal Brief filed August 25, 2008; the Examiner's Answer mailed October 3, 2008; and the Reply Brief filed December 3, 2008.

claims 22 and 24. App. Br. 9 and 11-12. We decide this appeal based on claims 1, 4, 7, 22, and 23. 37 C.F.R. § 41.37(c)(1)(vii) (2008).

Issues

The issues in this appeal are whether Appellant has shown that the evidence in Rubino does not support the Examiner's finding of prima facie anticipation of claim 23; and whether Appellant has shown that the evidence in the combined teachings of Evans, Rubino and Graham does not support the Examiner's conclusions of prima facie obviousness with respect to claims 1, 4, 7, 22, and 23.

Claim Interpretation

The issues entail the interpretation of claims 1, 4, 7, 22, and 23 by giving the terms thereof the broadest reasonable interpretation in their ordinary usage in context as they would be understood by one of ordinary skill in the art in light of the written description in the Specification unless another meaning is intended by Appellant as established therein, and without reading into the claims any disclosed limitation or particular embodiment. *See, e.g., In re ICON Health and Fitness, Inc.*, 496 F.3d 1374, 1378-79 (Fed. Cir. 2007); *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004), and cases cited therein; *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997).

The plain language of independent claim 1, on which claims 4 and 7 depend, specifies, in pertinent part, an article comprising at least any manner of water-impermeable electrostatically charged sheet and any manner of absorbent layer, wherein the bottom surface of the absorbent layer is bonded to the top surface of the electrostatically charged sheet. The plain language

of independent claim 23 as well as independent claim 21, on which claim 22 depends, specify, in pertinent part, a similar structure in which the bottom surface of the absorbent layer is "in contact with" the top surface of the electrostatically charged sheet, which language includes the absorbent layer bonded or electrostatically attached to the electrostatically charged sheet.

The transitional term "comprising" opens claims 1, 4, and 7 to include articles that contain any number of additional sheets and layers of any manner of materials. *See, e.g.*, *Exxon Chem. Pats., Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555 (Fed. Cir. 1995) ("The claimed composition is defined as comprising - meaning containing at least - five specific ingredients."); *In re Baxter*, 656 F.2d 679, 686 (CCPA 1981) ("As long as one of the monomers in the reaction is propylene, any other monomer may be present, because the term 'comprises' permits the *inclusion* of other steps, elements, or materials.").

Findings of Fact

We find Rubino would have disclosed to one of ordinary skill in this art a method including the steps of adhering an electrostatically charged flexible polymeric intermediate sheet to a display object, and pressing the electrostatically charged intermediate sheet of the combination to a support surface, such as a wall, in order to adhere the display object to the support surface. Rubino, e.g., col. 2, ll. 35-68, and col. 3, ll. 21-59. The "electrostatically chargeable flexible intermediate polymeric sheet [is] 1/16 of an inch or less in thickness." Rubino col. 2, ll. 44-45; *see also* col. 2, ll. 54-57 and 62-64. The electrostatic change should be "sufficient to

support at least three ounces per square foot of chargeable sheet for at least one month without sliding or falling." Rubino col. 2, ll. 49-52. The electrostatically charged sheet is a flexible polymeric sheet in the form of flexible polymeric foams which are readily commercially available as packaging material and have "[a] tight cell structure . . . [rather] than a porous one." Rubino, e.g., col. 3, ll. 21-32 and 60-68. Rubino discloses:

> Polyethylene foam is inexpensive and readily available. Polystyrene foam serves equally well. Also foam sponges work well. A closed cell foam works best, and the lighter the density the longer the display and intermediate sheet remain standing. The foam is flexible, so displays adhered to it can be rolled up, and displays can be attached to somewhat irregular surfaces. Rigid foams do not work as well because they do not conform to the support surface as well as flexible foams. Small bubbles in the foam are preferred over large expanded polymer beads, apparently because smaller voids are present.

Rubino col. 4, ll. 1-11. The display objects can be formed from, among other things, paper and felt. Rubino col. 5, ll. 39-45. Appellant does not dispute the Examiner's finding that such materials are inherently water absorbent. Ans. 4.

We find Evans would have disclosed to one of ordinary skill in this art, as illustrated by embodiments depicted in Figures 2 and 9, a multilayer flexible sheet comprising a nonsegmented layer 10 of woven or nonwoven material and a segmented layer 11, 12, 13, 14 of woven or nonwoven material, wherein the segmented and nonsegmented layers can each be comprised of multiple sublayers and are bonded together. Evans, e.g., abstract, col. 2, ll. 2-16, col. 3, ll. 23-39 and 63-67, and col. 4, ll. 6-10 and 37-42. The woven and nonwoven webs forming the layers can be any materials "that would allow the device to be used to absorb, dike, contain,

filter fluids or vapors and/or provide a wear-resistant working surface," and "any and all of the layers could be hydrophilic or hydrophobic as required by the end use application." Evans col. 3, ll. 40-62. In this respect, Evans illustrates applying flexible sheet 1 to liquid material 28 on a flat surface. Evans col. 4, ll. 6-46, and Figs. 4-8 and 10. The wear resistant surface 15 on nonsegmented layer 10 as illustrated in Figure 2, "may be absorbent surfaces and/or surfaces that allow fluids to pass through while capturing particulate material contained within the fluids." Evans col. 4, ll. 6-10 and 37-42, and Fig. 9; *see also* col. 2, ll. 17-23.

We agree with the Examiner's finding that Graham would have disclosed to one of ordinary skill in this art "electrostatically charged thermoplastic nonwoven webs in displays" and that "it is well known that opposites attract and thus the electrostatically charged layer will cling to an uncharged layer." Ans. 6, citing Graham col. 3, l. 44 to col. 4, l. 22. We find Graham illustrates the disclosed invention in Figure 1 with display 10 consisting of planar support 11, electrostatically charged web substrate 12, and different "manipulatives" or display items 13a-c. Graham col. 4, ll. 34-35, and col. 6, l. 2 to col. 7, l. 4.

Discussion

We considered the totality of the record in light of Appellant's arguments with respect to claims 1, 4, 7, 22, and 23 and the grounds of rejection advanced on Appeal. *See, e.g., In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("'On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of

nonobviousness.'") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998); *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992) ("After evidence or argument is submitted by the applicant in response, patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of argument.") (citing, inter alia, *In re Spada*, 911 F.2d 705, 707 n.3 (Fed. Cir. 1990)).

Rubino: Claim 23

We are of the opinion Appellant has shown that the evidence in Rubino does not support the Examiner's finding of prima facie anticipation. Appellant submits there is insufficient evidence in Rubino to establish that the plastic foams disclosed for the electrostatic sheet are necessarily inherently water-impermeable as contended by the Examiner. App. Br. 7 and 8-9; Reply Br. 1-2; Ans. 4 and 8-9. According to Appellant, "a solid sheet of polystyrene with holes passing through the sheet is clearly water permeable even though it is made from polystyrene," and "[e]ven a closed cell foam sheet can be water impermeable depending on the relative thickness of the sheet, whether the area between the cells is filled, and the diameter of the cells." App. Br. 8-9.

The Examiner submits Rubino's plastic foam sheet is "preferably of polystyrene an inherently water-impermeable and thus resulting in a water-impermeable electrostatically charged sheet." Ans. 4. According to the Examiner, Rubino's foam has "a closed cell structure" and thus, "has no open pores" resulting in "the inherent characteristic of being water-impermeable because the pores and cells are closed, not allowing water to permeate through the sheet." Ans. 8-9, citing Rubino col. 4, ll. 1-5. The

Examiner points out that in "the conventional coolers at a grocer normally made of polystyrene closed cell foam," water is "kept within the cooler and doesn't escape through the pores of the foam." Ans. 9.

The Examiner must establish a prima facie case of anticipation under § 102(b) by showing, as a matter of fact, that a single reference describes to one skilled in this art each and every limitation of the claimed invention encompassed by the claims, arranged as required therein, either explicitly or inherently. *See, e.g.*, *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997), and cases cited therein; *In re Bond,* 910 F.2d 831, 832-33 (Fed. Cir. 1990), and cases cited therein. Whether a claim element is inherent in a single prior art reference must be established by evidence that such limitation is necessarily present in the description in the reference. *In re Oelrich*, 666 F.2d 578, 581 (CCPA 1981)("'Inherency . . . may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.'"); *see also, e.g., Transclean Corp. v. Bridgewood Serv., Inc.*, 290 F.3d 1364, 1372-73 (Fed. Cir. 2002); *MEHL/Biophile Int'l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999); *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999).

We note Rubino discloses flexible polymeric foam sheets which are 1/16 inch or less in thickness and can be commercially available packaging material, wherein tight cell structures are preferred over porous structures, and small bubble foam is preferred over expanded bead foam "because smaller voids are present." *See above* pp. 4-5. Thus, as Appellant argues, there is no disclosure in Rubino describing an embodiment that, as a matter of fact, includes a flexible foam sheet that is necessarily inherently water-

impermeable and thus falls within claim 23. Indeed, the Examiner's illustration of water-impermeable polystyrene material is the well known styrofoam cooler constructed from rigid polystyrene sheets of much greater thickness than 1/16 inch or less as disclosed in Rubino, specifically to be water-impermeable. Such an example does not constitute extrinsic evidence which makes clear that one of ordinary skill in the art would recognize that Rubino's flexible polymeric foam sheets are necessarily inherently water-impermeable.

Accordingly, in the absence of a prima facie case of anticipation, we reverse the ground of rejection of claims 23 and 27 under 35 U.S.C. § 102(b).

Evans, Rubino and Graham: claims 1, 4, 7, 22, and 23

We are further of the opinion that Appellant has shown that the evidence in the combined teachings of Evans, Rubino and Graham does not support the Examiner's conclusions of prima facie obviousness with respect to claims 1, 4, 7, 22, and 23.

The Examiner takes the position one having ordinary skill in the art would have found it obvious to modify Evans' mat "to substitute or electrostatically charge the water-impermeable layer of [sic] in order to further secure the layer to any surface or three-dimensional object so that it stays without sliding or falling as taught by Rubino and in order to adhere it to a substrate as Graham teaches." Ans. 6; *see also* 9. Appellant argues "the surface that is being protected, or against which the mat is placed, is the floor, i.e., the surface that is in contact with the segmented layers" which are absorbent layers. App. Br. 11. Appellant further argues the claimed

electrostatically charged water-impermeable layer corresponds to Evans' layer 10 which layer "is not secured against any surface, and hence, there would be no reason to charge that layer." *Id.* The Examiner responds "the inner surface of layer 10 is adjacent to layer 10 [sic, 11, 12, 13, and 14] and that surface one would electrostatically charge to promote interfacial adhesion." Ans. 13. Appellant contends "[t]he Examiner has not pointed to any teachings in the prior art that interfacial adhesion in the sheets of [Evans] is a problem that needs to be addressed." Reply Br. 2.

On this record, we agree with Appellant that one of ordinary skill in this art would not find in the combined teachings of Evans, Rubino, and Graham any motivation to modify the mat of Evans either by electrostatically charging a liquid-impermeable layer taught by Evans or replacing that layer with another electrostatically charged liquid-impermeable layer in the reasonable expectation of arriving at an article falling within the appealed claims. In this respect, while we agree with the Examiner that one of ordinary skill in this art can modify the mat of Evans to arrive at an electrostatically charged water-impermeable layer, the applied references or established knowledge in the art generally available to this person must provide the suggestion or motivation to do so. *See, e.g., In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) (citing *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984) ("The mere fact that the prior art could be so modified [in the manner suggested by the Examiner] would not have made the modification obvious unless the prior art suggested the desirability of the modification."); *see also KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418-19 (2007) ("it can be important to identify a reason that would have

prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does"). The Examiner has not identified any suggestion or motivation in Evans to either place a mat in a fixed position based on a water-impermeable layer or to electrostatically "bond" an electrostatically charged water-impermeable layer to an absorbent layer. The evidence of the limited use of electrostatically charged layers in Rubino and Graham does not provide a suggestion or suggestion in either respect.

Accordingly, in the absence of a prima facie case of obviousness, we reverse the ground of rejection of claims 1 through 8 and 21 through 28 under 35 U.S.C. § 103(a).

The Primary Examiner's decision is reversed.

REVERSED

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